## **ABSTRACT**

The present invention discloses an electro-optical device support on a substrate. The electro-optical device includes two face-to-face freestanding membranes each supported near a top surface on one of two bonded substrates for defining a resonant cavity between the two membranes. Each of the substrates having an entire bulk-portion opposite the cavity etched off as a bulk micro-machining opening extended from each of the membranes through a bottom surface of the substrates.

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